

What is claimed is:

1. (Cancelled)
- 5 2. (Cancelled)
3. (Cancelled)
4. A mounting table, comprising:
10 a heating unit including a reflector plate made of an opaque quartz, and a quartz tube welded to a surface of the reflector plate, wherein a carbon wire which generates heat when a current is applied thereto is inserted in the quartz tube; and
15 a mounting table cover member installed to cover the whole quartz tube of the heating unit, a target object being mounted thereon, wherein the mounting table cover member is made of a light absorbing material.
- 20 5. The mounting table of claim 4, wherein the mounting table cover member is made of SiC.
6. A heat treatment apparatus, comprising:
a mounting table including a heating unit having a
25 reflector plate made of an opaque quartz, and a quartz tube welded to a surface of the reflector plate, wherein a carbon

wire which generates heat when a current is applied thereto is inserted in the quartz tube; and a mounting table cover member installed to cover the whole quartz tube of the heating unit, a target object being mounted thereon, wherein
5 the mounting table cover member is made of a light absorbing material;

a processing chamber accommodating therein the mounting table;

a gas supply unit for supplying a gas in the
10 processing chamber; and

a vacuum pumping system for evacuating the processing chamber.

7. (Amended) The heating unit of claim 6, wherein the
15 quartz tube is bent.

8. (Amended) The heating unit of claim 6 or 7, wherein the quartz tube is divided and welded to a plurality of zones on the surface of the reflector plate.

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9. A heat treatment apparatus, comprising:

a mounting table on which a target object is mounted;

a processing chamber accommodating therein the mounting table;

25 a gas supply unit for supplying a gas in the processing chamber;

a vacuum pumping system for evacuating the inside of the processing chamber;

a target object heating unit for heating the target object;

5 an inner vessel installed in the processing chamber;

a heating unit, installed between the inner vessel and an inner wall of the processing chamber, for heating the inner vessel,

10 wherein the inner vessel is made of a light absorbing material, and

the heating unit includes a reflector plate made of an opaque quartz, and a quartz tube welded to a surface of the reflector plate, a carbon wire which generates heat when a current is applied thereto being inserted in the quartz tube.

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10. The heat treatment apparatus of claim 9, wherein the inner vessel is made of SiC.

11. The heat treatment apparatus of claim 9 or 10, wherein
20 the target object heating unit is integrally embedded in the mounting table.

12. (Added) The heating unit of any one of claims 9 to 11, wherein the quartz tube is bent.

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13. (Added) The heating unit of any one of claims 9 to 12,

wherein the quartz tube is divided and welded to a plurality of zones on the surface of the reflector plate.

14. (Added) The heating unit of claim 4 or 5, wherein the
5 quartz tube is bent.

15. (Added) The heating unit of any one of claims 4, 5 and 14, wherein the quartz tube is divided and welded to a plurality of zones on the surface of the reflector plate.